

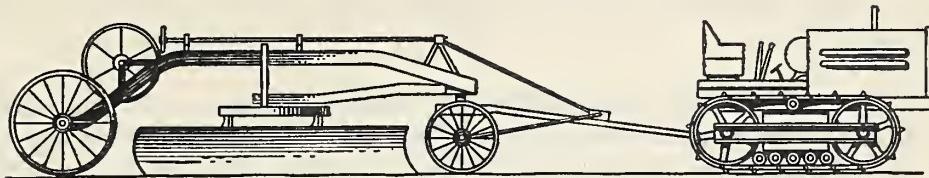
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# CONSTRUCTION



## HINTS

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE  
WASHINGTON, D.C.

Vol. 3

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No. 17

### GILL NET BOX and PORTABLE GILL NET DRYER

Forests doing a considerable amount of Lake and Stream Survey work, in which the collection of fishes is involved, will perhaps find the following construction hints interesting and beneficial:

Neither net boxes nor reel type driers are anything new, they have been used by commercial fishermen for as long a time as gill nets were used - probably centuries. The conventional type box holds one-half mile of net and is unwieldy for use from a small sized rowboat. Likewise, the net reel of the commercial fisherman is large, heavy, and a permanent structure on which are wound miles of net almost daily.

At first thought, it would seem as if both net boxes and a reel could be dispensed with in the interest of economy on small scale operations, but the following facts show that this is not the case:

It requires the services of two or three men for fifteen minutes to hang up a 300' net on trees and disentangle it. A similar period is required to take the dried net down. Setting a net which has been carried in "any old manner" requires from five to thirty minutes, depending upon how tangled the net has become in the interim. Moreover, a net must be set rapidly, and generally under one of the following conditions: deep water, or a high wind. A well packed net, set from a box, can be laid out as fast as a boat can be rowed, and even faster if the "setter" has had some experience in handling

(over)

nets. The total time saved in each setting (including drying and packing) is approximately one man hour when the reel and box combination is used.

A fair carpenter can build both the box and reel in an eight hour day.

The reel is 6' high, about 7' long, and has 4 drying arms, each arm 2' apart from the axle to the outer edge. Log bolts and wood screws are used on the braces so the reel can be taken apart in sections and transported more readily. The sections consist of 2 end standards, the reel itself, the axle (3/4" pipe), and the braces.

The net box is solidly built to withstand rough handling, and is put together with brass woodscrews to prevent rust damage which would result if iron nails or iron screws were used.

The box as well as all parts of the reel which come in direct contact with the net should be carefully planed and smoothed so no splinters can catch the net.

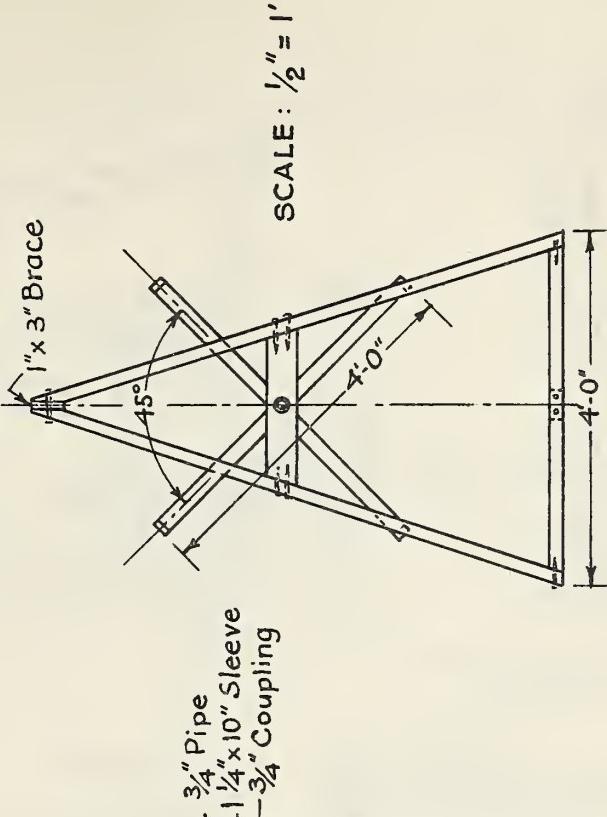
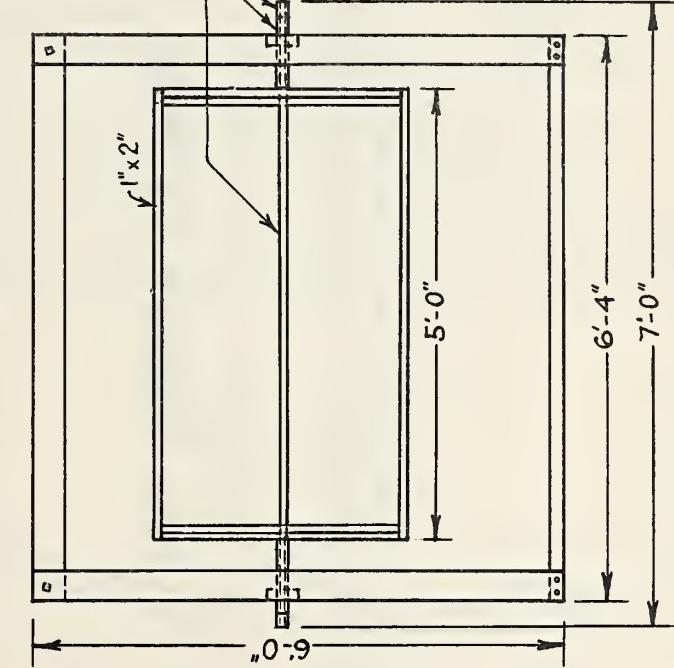
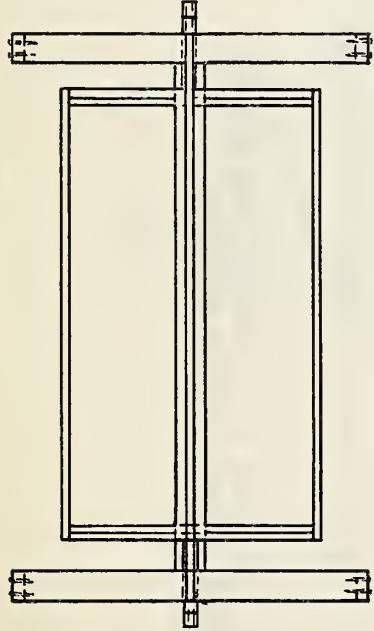
All nets and seines should be dried in the shade, never in the sun, as the action of the sun deteriorates a net far more than the actual use. A net should never be allowed to lie damp on a hot day. If the net cannot be dried immediately after "lifting", it should be kept in cool water, well shaded, until such time as it can be put on the reel. With care, a gill net or woven mesh seine will give several years of satisfactory service.

Submitted by

Eugene R. Kuhne  
Junior Range Examiner  
Baldwin Ranger District

## BILL OF MATERIAL

3 Pcs. 2" x 4"-14' Hemlock  
 1 Pcs. 2" x 4"- 8'  
 1 Pcs. 1" x 4"- 12' ripped to 2"x1" #1 W.P.  
 1 Pcs. 1" x 4"- 6' Hemlock  
 1 Pcs.  $\frac{3}{4}$ " Iron Pipe 7' long  
 1 Pcs. 1 $\frac{1}{4}$ " Iron Pipe 20' long (for Sleeves)  
 2-  $\frac{3}{4}$ " Couplings  
 8 Lag Screws  $\frac{3}{8}$ " x 3"  
 8 Lag Screws  $\frac{1}{4}$ " x 2"  
 2 Bolts - 4 $\frac{1}{2}$ " x  $\frac{3}{8}$ "



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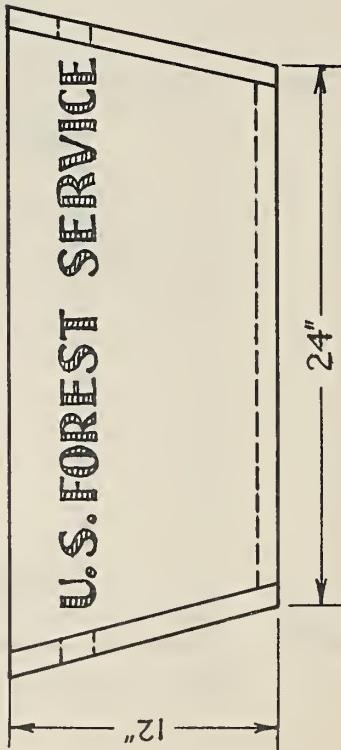
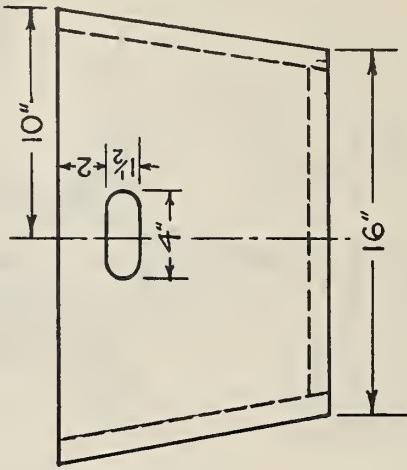
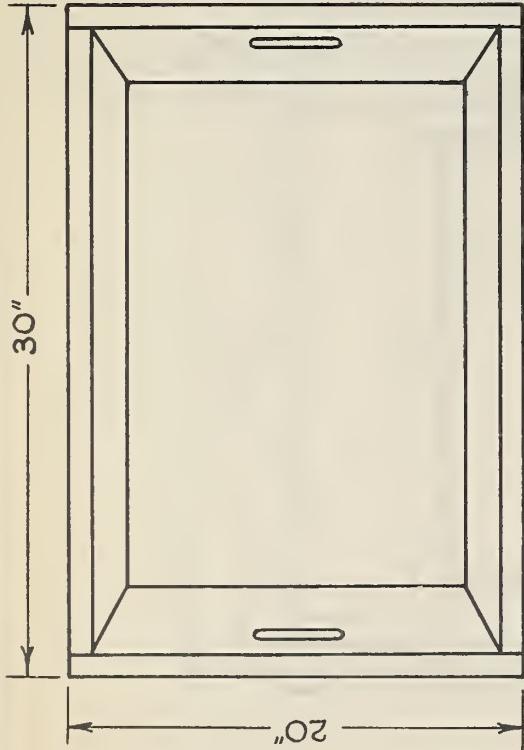
## NET DRY RACK (PORTABLE)

Designed by: E.R.K. Drawn by: E.F.R.

## BILL OF MATERIAL

1 Pc. 1" x 12", 8' long, No. 1 White Pine.  
 1 Pc. 1" x 8", 4' long, "  
 1 Pc. 1" x 4", 2' long, "  
 4 Doz. brass wood screws, 1 1/2"  
 1/2 Pint Outside White Paint.

SCALE : 1" = 8"



Note: Surfaces to be planed and sanded perfectly smooth before painting.

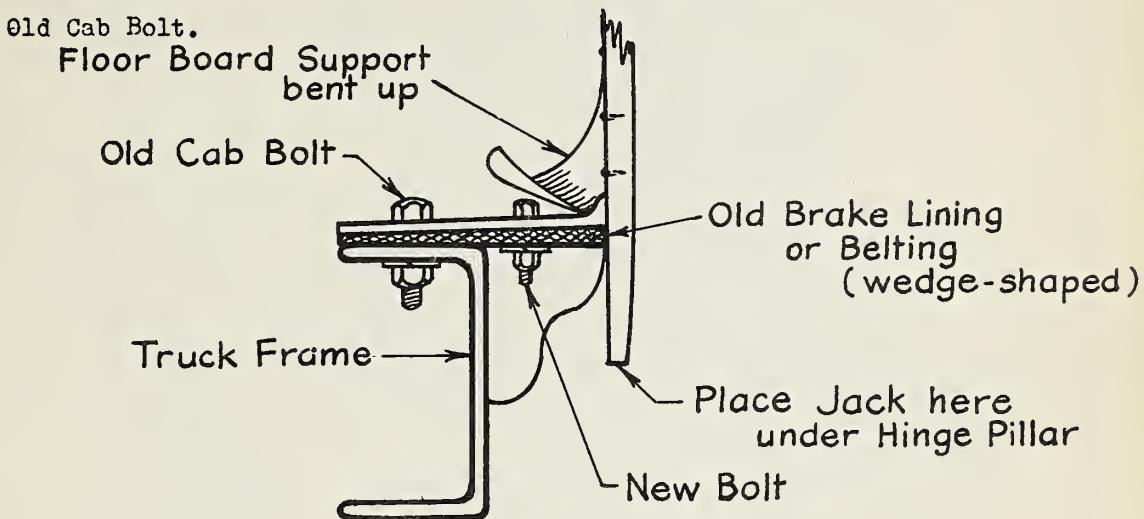
U. S. DEPARTMENT OF AGRICULTURE  
 FOREST SERVICE  
**GILL NET BOX**  
 NESTING TYPE

Designed by: E.R.K. Drawn by: E.F.R.

Repair for sagging doors on 1935 Chevrolet and G M C Stake and Dump trucks will save cabs door hinges and glass.

To remedy the sagging place a jack under the edge of the cab directly under the edge of the hinge pillar and jack up until high enough to place about two thicknesses of brake lining or old belting on top of side bracket which is riveted to frame at this place.

Floor board support bent up



Worn out brake lining will do the trick as it wears thin on one end and will wedge to proper thickness.

Drill a 3/8 in hole and bolt through the bracket and metal sill. This keeps the wedge in place and braces the cab floor.

The old cab bolt should not be loosened before jacking up as the sill should be bent back up to its proper place. To get at the top of the sill to put in new bolt pull two nails that hold the sheet metal floor board support to the hinge pillar and bend the corner up out of the way.

Tighten all other cab bolts and the doors will work like new.

Albert H. Medendorp  
Shop Foreman  
Central Shop R-9  
Baldwin, Michigan

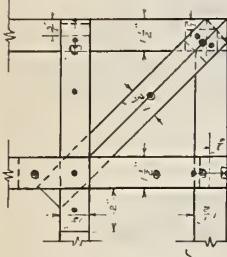
U.S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE REGION 9  
OTTAWA NATIONAL FOREST  
IRON RIVER RANGER DISTRICT

DESIGN OF REAR-CAB  
FOR PICK-UP BOXES.

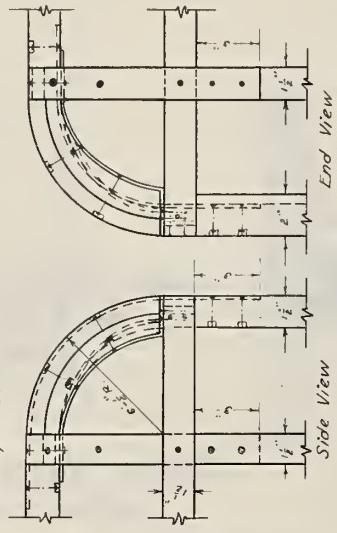
Designed By: F. S.  
Drawn By: P. S.  
Scales As Noted.  
Checked By: \_\_\_\_\_  
Approved By: \_\_\_\_\_  
September 1937

Notes:  
Windows & ventilator from  
condemned trucks.  
All dimensions given are for  
a Dodge large pick-up.

Note: There is a window in  
front of cab similar  
to one on side.



Top View



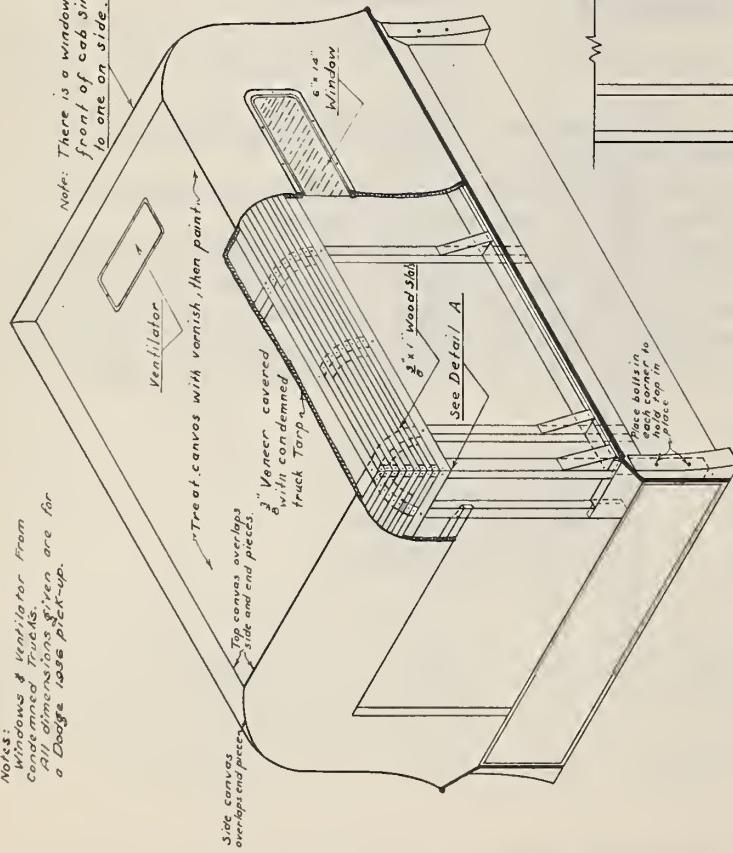
Side View

DETAIL A

BILL OF MATERIALS	
1 Quart Paint	.35
1 Grass Flat Head Wood Screws	.40
4 Sheets Plywood (4x4x 3/8")	3.60
40 Bolts 1/4" x 2"	.20
150 - 3/4" Lock Washers	2.37
12' Strap Iron 1 1/2 X 1/8"	.42
Cost Of Materials	13.94
2 1/2 Days Enrollee Labor	3.75
Total Cost	17.69
Canvas From Condemned Truck Tires 1 1/2" Posts & 1" Slots From Scrap Lumber.	

End View

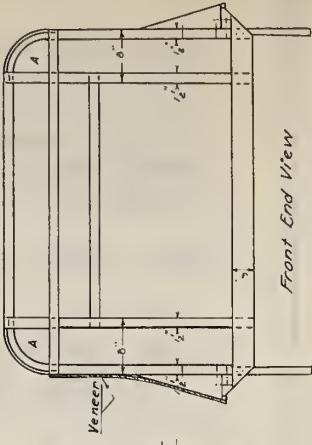
End View



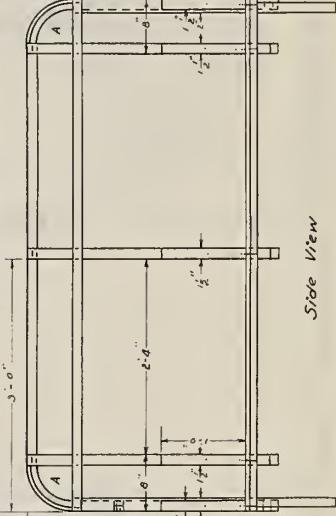
Isometric View (Rear & Side)  
Showing Method Of Attaching Cab  
To Pick-up Box And Cab Details.



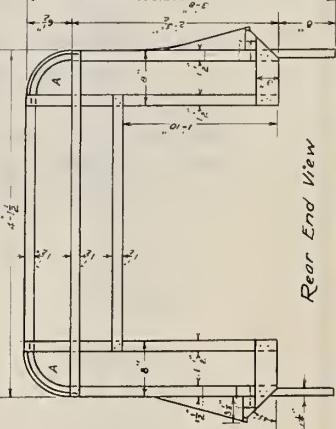
Front End View



Front End View



Side View



Rear End View

Details Of Frame Of Cab Scale: 1:10